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Jurgenson et al.

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(54) **IMAGE BASED TRACKING IN AUGMENTED REALITY SYSTEMS**

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(71) Applicant: **Snapchat, Inc.**, Venice, CA (US)

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(72) Inventors: **Nathan Jurgenson**, Venice, CA (US);
Linjie Luo, Venice, CA (US);
Jonathan M. Rodriguez, II, San Antonio, TX (US); **Rahul Sheth**, Venice, CA (US); **Jia Li**, Venice, CA (US); **Xutao Lv**, Venice, CA (US)

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ABSTRACT

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Systems and methods for image based location estimation are described. In one example embodiment, a first positioning system is used to generate a first position estimate. A set of structure façade data describing one or more structure façades associated with the first position estimate is then accessed. A first image of an environment is captured, and a portion of the image is matched to part of the structure façade data. A second position is then estimated based on a comparison of the structure façade data with the portion of the image matched to the structure façade data.

